Remarks

Applicants appreciate the Examiner's courtesy in providing a telephonic interview with Applicants' representatives on August 17, 2004. During the interview, Applicants' representative pointed out perceived differences between the invention recited in the amended claims and the primary references, i.e., the Perkins patent.

Claims 1, 3-6, 8, 11-14, and 28-58 are pending in the application. Claims 1, 5, 8, and 14 have been amended herein. Claims 7 and 15-23 have been canceled herein without prejudice. Claims 28-58 have been added herein. Favorable reconsideration of the application, as amended, is respectfully requested.

I.   REJECTIONS OF CLAIMS 1, 3-8, AND 11-23 UNDER 35 U.S.C. §§ 102 AND 103

Claims 1, 5-8, and 11-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,496,477 ("Perkins"). Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable based on the combination of Perkins and U.S. Patent No. 5,751,956 ("Kirsch"). All pending claims are believed to be allowable for at least the following reasons. Withdrawal of the rejection is respectfully requested.

The inventions defined in the pending claims are directed to a method, an apparatus and a computer program product for replicating a plurality of original packets in a packet flow received by a first device.

Independent Claims 1 and 28-30

Independent claim 1 has been amended herein to further clarify one of the aspects of the invention. Specifically, independent claim 1 requires, *inter alia*, "the packet flow following a first routing path between a source device and a destination device," "the first routing path including the first device," "receiving both directions of the packet flow with the first device," and "transmitting the original packets from the first device along the first routing path to the source and destination devices." Independent claims 28-30 each contain recitations corresponding to those of independent claim 1. Dependent claim 5 has been amended herein to be consistent with recitations of claim 1. Support for the amendments is found at, for example, page 6, line 19-22 of the present specification.

According to a specific exemplary embodiment of the invention, the test device 112 (e.g., a packet sniffer) can remotely monitor all or a specified subset of the traffic through the router 106. For example, the client machine 102 resident on the LAN 104 communicates via the router 106 and the WAN 108 with the server 110. The router 106 identifies the packets of interest. Once the packets of interest have been identified, they are replicated by the router 106. Then, the

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packets of interest are transmitted by the router 106 along their original routing path to the original destination, i.e., the client 102 or the server 110. Also, the replicated packets are transmitted by the router 106 to the test device 112 along a different routing path. Thus, in this exemplary embodiment, the router 106 receives both directions of the packet flow between the client 102 and the server 110. In summary, one of the exemplary embodiments of the invention enables troubleshooting of a bidirectional packet flow.

By contrast, none of the cited references teach or suggest the above-identified claimed features, *inter alia*, receiving both directions of the packet flow with the first device, and transmitting the original packets from the first device along the first routing path to the source and destination devices. For example, the Perkins patent is directed to a path diversity mechanism (column 3, line 61 - column 4, line 11). In order to provide redundancy in delivering packets, the Perkins system provides multiple paths from the computer 103 (the origin) to the computer 105 (the destination) (column 6, lines 18-31). However, nothing in Perkins suggests, *inter alia*, receiving both directions of the packet flow with the first device.

It is respectfully submitted that the Perkins patent is silent on the claimed troubleshooting of a bidirectional packet flow. Perkins' path diversity in no way suggests, implicitly or explicitly, receiving and replicating both directions of the packet flow with the first device as claimed. Therefore, the Perkins patent cannot be said to teach or suggest the above-identified claimed feature recited in independent claim 1.

Independent Claims 8 and 31-33

Claim 8 has been amended herein to incorporate all limitations of claims 1 and 7. Independent claims 31-33 each contain recitations corresponding to those of independent claim 8. Independent claim 8 requires, *inter alia*, "determining which of the original and replicate packets reach their respective destination devices first, thereby identifying a winner destination device," and "awarding a connection to an originating device to the winner destination device." Support for the amendments is found at, for example, page 14, line 1-11 of the present specification.

In summary, one specific exemplary embodiment of the invention enables load balancing scheme which awards connection to an originating device to the winner destination device. By contrast, none of the cited references teach or suggest the claimed load balancing features. The Office Action cites various portions of the Perkins patent as describing the claimed load balancing scheme. However, it is respectfully submitted that these cited portions of Perkins are not relevant to the claimed invention because they are silent on determining which of the original

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and replicate packets reach their respective destination devices first, thereby identifying a winner destination device. Further, the cited portions fail to teach or suggest awarding a connection to an originating device to the winner destination device as claimed.

It is respectfully submitted that the Perkins patent fails to teach the claimed load balancing scheme. Therefore, the Perkins patent cannot be said to teach or suggest the above-identified claimed feature recited in independent claim 8.

The Kirsch patent was cited as describing a packet redirection protocol and an object caching protocol. Kirsch is not relevant to the above-discussed claimed feature since it is silent on transmitting a replicate packet flow to a different destination. Therefore, Kirsch fails to cure the deficiencies of Perkins.

In view of the foregoing, independent claims 1, 8, and 28-33, and their dependent claims are believed to be allowable over the cited art. Withdrawal of the rejections is respectfully requested.

Independent Claims 41, 52-58

Independent claims 41, 52-58 and their dependent claims have been added herein to further clarify one aspect of the invention. Specifically, claim 41 requires, *inter alia*, "the packet flow corresponding to a destination," "transmitting the original packets from the first device along the first routing path to the destination," "transmitting the replicate packets from the first device along a second routing path, the second routing path ... including the second device," and "the destination [which] is different from the second device." Other independent claims 52-58 contain recitations similar to those of claim 41. Support for the amendments is found at, for example, page 11, line 15 - page 12, line 8 of the present specification as described below.

According to an exemplary embodiment of the invention, the test device 112 (e.g., a packet sniffer) can remotely monitor all or a specified subset of the traffic through the router 106. For example, the client machine 102 resident on the LAN 104 communicates via the router 106 and the WAN 108 with the server 110. The router 106 identifies the packets of interest. Once the packets of interest have been identified, they are replicated by the router 106. Then, the packets of interest are transmitted by the router 106 along their original routing path to the original destination, i.e., the client 102 or the server 110. Also, the replicated packets are transmitted by the router 106 to the test device 112 along a different routing path. Thus, in this exemplary embodiment, the original destination of the packets of interest is the server 110 while the replicate packets' destination is the test device 112, which is different from the server 110.

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By contrast, none of the cited references teach or suggest the above-identified claimed feature, *inter alia*, the replicate packets are transmitted along the second routing path including the second device, where the destination of the [original] packet flow is different from the second device. For example, the Perkins patent is directed to a path diversity mechanism (column 3, line 61 - column 4, line 11). In order to provide redundancy in delivering packets, the Perkins system provides multiple paths from the computer 103 (the origin) to the computer 105 (the destination) (column 6, lines 18-31). As indicated in Fig. 1 of Perkins, both of the two paths 117 and 119 have the same destination, that is, the computer 105. See, e.g., column 6, lines 32-41 of Perkins.

It is respectfully submitted that the Perkins patent is silent on transmitting replicate packets to a second device which is different from an original destination of the packet flow as claimed. Perkins' path diversity in no way suggests, implicitly or explicitly, that replicate packets are transmitted to a different destination as claimed. Therefore, the Perkins patent cannot be said to teach or suggest the above-identified claimed feature.

The Kirsch patent was cited as describing a packet redirection protocol and an object caching protocol. Kirsch is not relevant to the above-discussed claimed feature since it is silent on transmitting a replicate packet flow to a different destination. Therefore, Kirsch fails to cure the deficiencies of Perkins.

In view of the foregoing, independent claims 41 and 52-58, and their dependent claims are believed to be allowable over the cited art. Withdrawal of the rejections is respectfully requested.

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II.   CONCLUSION

Applicants believe that all pending claims are in condition for allowance, and respectfully request a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-843-6200, ext. 245.

Respectfully submitted,
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Limited Recognition under 37 CFR § 10.9(b)

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Expires: January 2, 2007

Harry I. Moatz
Director of Enrollment and Discipline